

## Farmers and pastoralists' socio-cultural interaction: mitigating conflicts in rural communities for livelihood development in Nigeria

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Pastoralists and farmers' activities guarantee food security while the pastoral systems have been the focus of conflicts in recent times in Nigeria. Much work has been done to explore the causes and effects of such conflicts from the farmers' perspectives; hence this study approached it from the pastoralists' viewpoint. The study examined the socio-cultural influence of interactions between pastoralists and farmers of the host communities in Nigeria. A three-stage random sampling procedure was used to select 121 pastoralists while data was collected using an interview schedule. Findings showed that 68.6% of the sample owned above 16 cattle and the annual income of 47.1% of the sampled pastoralists range from 100,000-500,000 Naira for over 16 years. The factors triggering conflicts between pastoralists and their farmer hosts included: destruction of farmers' crops by herds, cattle rustling by thieves, sexual harassment involving their women, and harassment by the host community. This study also showed a relatively poor socio-cultural integration in intermarriage, understanding and speaking of host communities' language. Age, marital status, herd size, education level and income influenced the integration of pastoralists into host communities. The study concluded that there is a strong need for inter-marriages between pastoralists and farmers in furtherance of integration of the pastoralists with the socio-cultural values of the farmers. This can be achieved by engaging extension workers who will provide requisite enlightenment, education and training to the pastoralists. It thus becomes imperative for stakeholders to foster an enabling environment for improved social integration to assuage the rising conflicts. The study is novel as it documents the nexus between socio-cultural interaction and conflicts; with implication for capacity building, education and training on conflict resolution for livestock extension practitioners.

**Keywords:** Grazing, resource scarcity, cattle, symbolic interaction, social institutions, attitudes and behavior; cultural differences.

### INTRODUCTION

Pastoralism functions as a cultural system with a distinguishing ecology. The community of pastoralists is perceived in two dimensions: as an ecological unit and as a socio-cultural community (Ezeala and Mbalisi, 2021). The pastoral community is a self-perpetuating group with distinctive population, composition, geographic distribution and certain functional prerequisites for survival (Ducrottoy *et al.*, 2018). This community encompasses a set of

establishments that relate it to a bigger culture; and is also maintained by an inner conscious cohesiveness (Idowu and Taofik, 2017). As part of the pastoral community, pastoralists have socio-cultural institutions through which they enter into mutually supportive relations with their herds and dependents or parasitic relations with the natural environment of their ecosystem (Ezeala and Mbalisi, 2021). The socio-cultural importance is embodied in a minimum of two cultural values that are central to the identity of the pastoralists; these values are "pulaaku" (the essence of being pastoralists) and "nai"

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(cattle). These socio-cultural values, such as the degree of pastoralists' interaction with their host communities, can influence their adoption of innovation (Ejembi and Obekpa, 2017; Demmalino *et al.*, 2017).

Historically, the pastoralist-farmer activities have become a way of guaranteeing food security in rural communities. The importance of pastoralist industry, particularly its contribution to food production in the developing world, cannot be overemphasized. All along, the interactions between pastoralists and farming communities had been harmonious whilst living in a peaceful and symbiotic relationship. Herders' cattle would usually fertilize the farmers' lands in exchange for grazing rights (International Crisis Group [ICG], 2017). However, in recent times, the tensions and reports of violence relating to cattle herders have spread throughout northern and southern states of Nigeria (Aderinoye-Abdulwahab *et al.*, 2019) and incidents have occurred in a minimum of twenty-two out of the 36 states of Nigeria (Nwankwo, 2021). According to one report on conflict in 2016, over 2,000 people were killed and tens of thousands were displaced in Benue and Kaduna States alone; while in another report, incidents involving herders accounted for 44 percent of all fatalities in the country in the same year (ICG, 2017). Such criminality and livelihood conflicts affecting pastoralists and farming communities have led to the loss of lives and properties in many states of Nigeria (Obaniyi *et al.*, 2021).

Scholars in their various studies have attributed the causes of these bloody clashes to include; cattle stealing, inequitable access to land, diminishing land resources, policy contradictions, crop damage, ethnic rivalry, among others (Aderinoye-Abdulwahab *et al.*, 2019; Ezeala *et al.*, 2019). Solutions that will mitigate the re-occurrence of conflicts between pastoralists and farming host communities have been suggested. For instance, Mawoli and Adamu (2020) anticipated solutions that will have practical implications: Oli *et al.* (2018) proffered the establishment of dialogue and conflict resolution platforms at the community, local government and state government levels; Ajibefun (2018) noted that there should be a re-orientation and re-education for herders and farmers; while Ogbeide (2017) suggested sedentary settlements for nomadic herders. Despite these contributions, there are still insufficient empirical findings focusing on how socio-cultural factors such as language, marriage, and symbolic interaction could mitigate the conflicts between pastoralists and farmers. This is necessary to understand the root cause of the problem in order to address it appropriately; otherwise, it will be difficult to proffer lasting solutions to the problem. A closely related study authored by Ezeala and Mbalisi (2021) studied the integration of indigenous socio-cultural forms in environmental adult education for conflict resolution between pastoral nomads and host communities in Nigeria. The authors used secondary data

from educational point of view to explore some of the indigenous socio-cultural forms that can be integrated in environmental adult education for forestalling conflict between pastoral nomads and their host communities in Nigeria (Ezeala and Mbalisi, 2021). It is also important to stress the issue of trust as efforts at mitigating the conflicts would not yield positive results if parties to the conflict do not have confidence in one another. Dogan and Tezcan (2021) emphasized that the presence of trust in relationships contributes to effective performance in any organization and that it is essential to foster trust, peace and mutual coexistence in relationships in order to attain positive outcomes. Therefore, this study has its uniqueness in documenting the influence of socio-cultural interaction in mitigating conflicts between pastoralists and host communities in Nigeria using primary data. The present study equally employed Spearman's correlation analysis to identify factors influencing the socio-cultural interactions between pastoralists and their host communities in Nigeria.

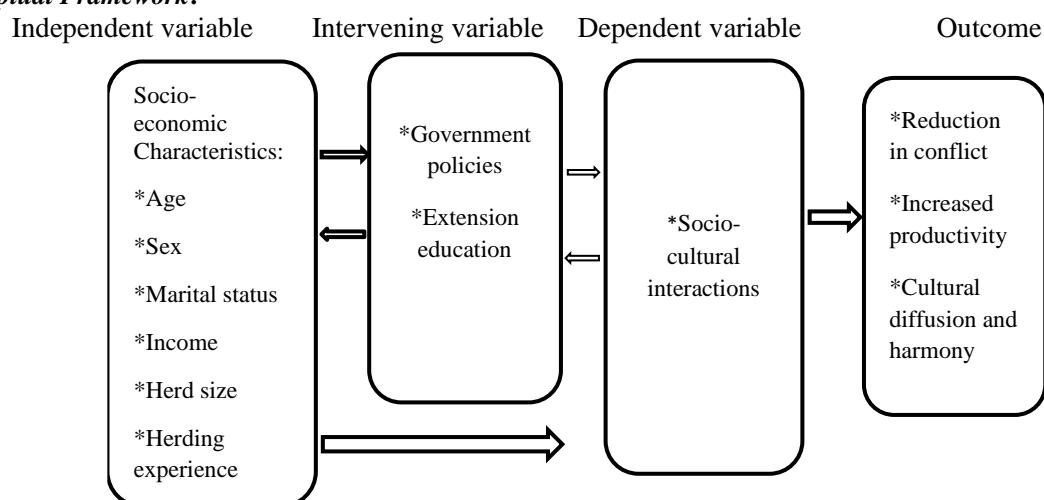
Against this background, the study seeks to investigate the socio-cultural interactions influencing pastoralists-farmers' conflicts in Kwara State, Nigeria. Specifically, the study described the socio-economic characteristics of pastoralists, identified factors that triggered conflicts, investigated the symbolic interactions and determined the influence of socio-cultural integration on the pastoralists and farmers of their host communities.

### **Theoretical and conceptual framework**

**The Eco-Violence Theory:** this study adopted the Eco-Violence Theory (EVT) developed by Homer-Dixon (Homer-Dixon, 1999). It explains the relationship between environmental factors (such as: resource scarcity or abundance) and violent conflicts (Ezenwa, 2021). The theory of eco-violence has its tenets in the migration of large populations, due to deprivation, to areas considered as greener pastures. The large populations would have hitherto depended on resources such as freshwater, cropland, forests, and fish; but due to scarcity or shrinking of these resources which could be as a result of misuse, over-use or degradation, as well as unequal distribution. In this regard, conflict is driven by the desperation of the affected migrant groups; who will normally have the intention of protecting and advancing their livelihoods and economic interests; in the face of harsh economic realities.

Evidence from literature already suggested that resource scarcity is caused by variables such as: population growth, economic development, pollution, climate change (Matanmi *et al.*, 2017), and lack of access and control over productive resources (Aderinoye-Abdulwahab *et al.*, 2016). Thus, environmental resource scarcity will reduce agricultural and economic productivity, further inducing the disruption of economic livelihoods, poverty and migration. Migration can occur either because the environmental quality of a habitat has



**Conceptual Framework:**

**Figure 1. Conceptual Framework: Symbolic Socio-cultural Interaction of Pastoralists with Farmers of Host Communities in Kwara State, Nigeria.**

become unlivable or, more commonly, because the migrant's economic outcome is likely to be better in areas with greater resource availability. It is fundamental to state that one basic feature of Fulani herdsman is migration. Presumably, the eventual effects of migration on host communities will include: challenges of integration, food shortages, conflicts of interest, pressure on land, cultural and social differences, over-population, and social disorganization; all of which are conflict triggers.

Hence, this study presupposes that pastoralists and farmers in their host communities would normally have altercations due to the pressures associated with the challenges of integration and other conflict triggers. While the listed factors can result in failure to integrate socio-culturally, it is expected that the deployment of mitigating effects such as government policies and extension education along with certain socio-economic characteristics can help to assuage the challenges, resulting in outcomes such as increased productivity and reduction in conflicts (Fig. 1).

## MATERIALS AND METHODS

**Study area:** The study was carried out in Kwara State Nigeria. The State has a total land area of 32,500 km<sup>2</sup> with Guinea

Savannah vegetation. Geographically, the State is situated between latitude 7° 20" and 11° 05" North of the equator and longitude 2° 5" and 6° 45" East of the prime meridian. Kwara State population was 2.37million as per the 2006 population census and this was projected to rise to 4.1million by 2019 given an annual population growth rate of 2.6% in Nigeria (NBS, 2017). Predominant occupations in the state are: crop farming, livestock farming, trading, blacksmithing, and weaving, among others. The state is endowed with natural resources in the area of agriculture, tourism and solid minerals.

The population of the study consists of all registered pastoralists in Kwara State. A three-stage sampling procedure was used to select respondents. The first stage involved a purposive selection of two Zones (C and D) from the four zones (A, B, C, and D) of Kwara State based on the categorization of the Agricultural Development Project (ADP). The selection of these zones was based on the high prevalence of pastoralists in the zones. The selected zones have 12 LGAs in total (Zone C: Asa, Moro, Ilorin-south, Ilorin-east and Ilorin-west Local Government Areas (LGAs); Zone D: Oke-Ero, Isin, Ifelodun, Ekiti, Irepodun, Offa and Oyun LGAs). The second stage involved a simple random selection of 4 LGAs from each of the two ADP zones C and

**Table 1. Summary of sampling procedure and sample size n= (121).**

Stages	Stage 1	Stage 2	Stage 3
Method of selection	Purposive Selection of two zones	Random selection of 4 LGAs	Random selection of Pastoralists
Selected	ADP Zones (C and D)	Zone C: Asa, Moro, Ilorin-south, Ilorin-east and Ilorin-west; Zone D: Oke-Ero, Isin, Ifelodun, Ekiti, Irepodun, Offa and Oyun	32 pastoralists from each LGA



D. The selected LGAs were Moro, Oke-Ero, Offa and Oyun. The third stage involved a simple random selection of 32 pastoralists (so as to get a sizeable number) in the LGAs to arrive at a total sample size of 128 respondents. However, questionnaire retrieved from 7 of the respondents were not completely answered and were therefore disregarded, leaving a total of 121 for analysis.

The factors influencing conflicts among pastoralists were measured with a 5-point Likert scale of: Strongly Agree (SA) =5, Agree (A) =4, Undecided (UN) =3, Disagree (DA) =2, Strongly Disagree (SD) =1. Data were analyzed using descriptive statistics such as frequency distribution, percentages, mean scores and spearman correlation.

## RESULTS

### *Socioeconomic characteristics of pastoralists in Kwara State:*

Results of socio-economic characteristics presented in Table 2 showed that majority (62%) of the respondents were 40years or below. The results (Table 2) further showed that all (100%) of the respondents were males and the majority (71.1%) were married. It was also observed in this study that the males were involved in cattle rearing while the females are engaged in milking and milk processing. Additionally, respondents were largely (95%) of the Islamic faith.

Table 2 further indicated that the pastoralists generally have low level of formal education as almost half (42.1%) have no formal education while some (39.7%) have received Arabic education. Only 13.2% of the respondents attained primary education and not more than 5% exceeded secondary school. Most (68.6%) of the respondents owned more than 16 cattle each while their annual incomes for a substantial number of the sample (47.1%) ranges from 100,000-500,000 Nigeria Naira for over 16years.

**Factors that can trigger conflicts among pastoralists:** The various factors that trigger conflicts among pastoralists are explained in Table 3. Factors identified in the study as indicated by the pastoralists included: destruction of crops by cattle, cattle rustling, search for stray or lost cattle, sexual harassment, and disregard for traditional authorities.

**Symbolic interaction of the pastoralists in host communities:** Symbolic interaction of the pastoralists in host communities is presented in Table 4. The table showed that the majority of respondents (85.1%) agreed that host communities have standard ways of doing things, 62% further indicated that they conformed to standard behavior of host communities, 60% perceived that pastoralists can influence host community behavior, 90.9% were of the opinion that they imbibed values of host communities (shared values) while 69.4% joined Muslim societies of their host communities.

**Table 2. Socio-economic characteristics of pastoralists in the study (n= 121).**

Variable	Frequency	Percentage
<b>Age</b>		
≤ 40	75	62.0
41-50	15	12.4
> 50	31	25.6
<b>Sex</b>		
Male	121	100.0
<b>Marital status</b>		
Single	35	28.9
Married	86	71.1
<b>Religion</b>		
Christianity	6	5.0
Islam	115	95.0
<b>Educational level</b>		
No Formal education	51	42.1
Primary education	16	13.2
Secondary education	6	5.0
Tertiary education	0	0.0
Arabic education	48	39.7
<b>Number of cattle owned</b>		
1 – 5	3	2.5
1 – 10	17	14.0
11 – 15	18	14.9
16 and above	83	68.6
<b>Annual income from cattle rearing (Naira)</b>		
100,000-500,000	57	47.1
600,000-1million	42	34.7
Above 1million	22	18.2

**Table 3. Pastoralists' perceived causes of conflicts.**

Causes of conflict	Percentage responses					Mean (SD)	Remark
	SA	A	U	D	SD		
Destruction of crops	89.3	10.7	0.0	0.0	0.0	4.8926 (4.9)	Factor
Cattle rustling	72.7	24.0	0.8	2.5	0.0	4.6694 (4.7)	Factor
Search for stray or lost cattle	17.4	16.5	3.3	49.6	13.2	2.7521 (2.8)	Not a factor
Sexual harassment of women	30.6	28.9	6.6	23.1	10.7	3.4545 (3.5)	Factor
Harassment of pastoralist by host community	38.8	57.0	0.8	1.7	1.7	4.2975 (4.3)	Factor
Disregard for traditional authority	15.7	17.4	12.4	31.4	23.1	2.7107 (2.7)	Not a factor
Indiscriminate bush burning	10.7	24.0	12.4	23.1	29.8	2.6281 (2.7)	Not a factor

Source: Field survey, 2018



Years of experience in cattle rearing		
1 – 5	3	2.5
6 – 10	52	43.0
11 – 15	9	7.4
16 and above	57	47.1

Source: Field survey, 2018

**Table 4. Symbolic interaction of pastoralists in host communities.**

Variables	Yes	
	Frequency	(%)
<b>Interaction with host communities</b>		
Does your host community share beneficial information with you?	37	30.6
Does your host community's perception about you influence your behavior?	73	60.3
Do you greet your host community members?	47	38.8
Do you currently belong to any social organization?	53	43.8
Have you been a member of any social organization in the past?	36	29.8
Does your host community have standard ways of doing things?	103	85.1
If Yes, do you conform to this standard?	75	62.0
Do you marry other ethnic groups?	33	27.3
Do you understand the language of your host community?	43	35.5
Do you speak the language of your host community?	26	21.5
<b>Do you associate with any of these organizations?</b>		
Non-religious	3	2.5
Self help	2	1.7
Church organization	1	0.8
Muslim societies	84	69.4
Comparative society	4	3.3
None	27	22.3
<b>Compliance with shared values of host communities</b>		
Respect for leaders	15	12.5
Walking in cluster with community people	46	38.0
Honesty	7	5.8
Respect for leaders and walking in cluster	22	18.2
All of the above	31	25.6
<b>Extent of compliance with shared values of host communities</b>		
Frequently	110	90.9
Seldom	11	9.1
Not at all	-	-

**Hypothesis of the study:** Table 5 presents the results of the relationship between some selected socio-economic characteristics and the symbolic interaction of the pastoralists in host communities using Spearman correlation.

**Table 5. Spearman's correlation between socio-economic characteristics and symbolic interaction of pastoralists in host communities.**

Variable	r value	p value	Significance
Age	-0.235	0.010	Significant
Gender	0.007	0.941	Not significant

Marital status	-0.319	0.001	Significant
Herd size	0.263	0.004	Significant
Education level	-0.029	0.001	Significant
Herding experience	-0.533	0.001	Significant
Annual income	0.306	0.001	Significant

Source: Field survey 2018 \*-Significant at p 0.05

## DISCUSSION

**Socio-economic characteristics of pastoralists:** The average age of the pastoralists implied that cattle herders (pastoralists) in Kwara State are relatively young people who are expected to be agile and economically viable in the business of cattle rearing. This age group is likely to be more impatient in situations of disputes and may lack the needed capacity to negotiate without violence (Shehu, 2018). That the males are the ones rearing the cattle while the females are involved in milking and milk processing is consistent with the fact that cattle rearing is solely for males while the females are the custodians of the milk. The result also showed that majority (95%) are Muslims. This may explain the high rate of married pastoralists as Islamic religion encourages marriage once maturity is attained.

The result of the educational status of the pastoralists reflected their flair for religious education. This finding corroborated that of Olawepo *et al.* (2021) who earlier reported that 47.1% of pastoralists have no formal education in Kwara State. It implied that western education has not been fully imbibed among the pastoralists; thereby resulting in high number of illiterates among them, despite the existence of nomadic schools. Again, the result is indicative of a few of the respondents' who transited from primary education to secondary education. Ng'asike (2019) and Aderinoye-Abdulwahab and Afolabi (2016) in their findings, also reported a low literacy level within pastoralist communities, emphasizing that pastoral education rarely attract national discussions in the moderation of education curriculum.

**Factors that trigger conflicts involving pastoralists:** Obaniyi *et al.* (2021) who used farmers as respondents concluded that the pastoralists/nomads caused damage and ate crops on the field, stole farm produce and killed farmers. These acts are capable of causing conflicts between the herders and farmers and could lead to food insecurity and even threat to the lives of the farmers. Another cause considered as a factor was attempted rustling of pastoralists' cattle by thieves. According to Olaniyan and Yahaya, (2016), cattle rustling causes big economic losses to herders, and this pushes them to expand the number of herds in order to make up for the losses. Therefore, herders will need to find more grazing areas so their animals can adequately feed and reproduce more. In a similar development, Okunlola (2016) had earlier find that cattle theft and language barriers are the main problems that trigger conflicts between nomads and host communities.





The current study also identified sexual harassment of women and harassment of pastoralists by the host community as factors that triggered conflicts in the study area. Sexual harassment cannot be tolerated among any social group. As pastoralists indicated that sexual harassment of their women is a factor that triggered violence, so also, [Obaniyi et al. \(2021\)](#) had found that the pastoralists/nomads engaged in sexual harassment of women of their host communities.

Based on the findings shown in Table 4, it could be deduced that majority of pastoralists have been integrated into their host communities' standard behavior, shared values, and religion; hence, they could easily influence the host community behavior. However, it is note-worthy to state that only a few (21.5%) of the pastoralists could speak the language of their host communities while as little as 27.3% married from within their host communities. These have severe implications for socio-cultural integration and it would make the conclusion that pastoralists have been integrated doubtful.

**Hypothesis of the study:** As shown in Table 5, all the socio-economic characteristics, except gender, had a significant relationship on the contribution of symbolic interaction of the pastoralists in host communities. This could mean that older and married pastoralists who equally have more herding experiences might, more than likely, associate or interact with the predominantly farming host community at a rate that outweighed the younger ones. The older pastoralists may also possess the ability to manage crisis before it escalates into conflict. Therefore, a pastoralist's age has a significant relationship with their level of interaction for mitigating conflicts. Other socio-economic characteristics such as education level will greatly contribute to socialization and reduction of conflicts between pastoralists and their hosts as formal education will benefit both the young and old; they will be able to learn about their common history and culture and will be exposed to the beliefs of other communities and their ways of life, hence fostering unity. Conflicts will undoubtedly have a significant effect on the income generated by both parties; therefore, the pastoralists' income will reduce in conflict situations. A good relationship between pastoralists and host communities will enhance income generation as the transaction level will improve between both parties and the resultant effect will be a reduction in conflict situations and an improvement in livelihoods.

**Conclusion:** This study has shown a uniqueness that is different from previous works as it reported, for the first time, the influence of social interaction on conflicts between pastoralists and their host communities. Specifically, the study described the socio-economic characteristics of pastoralists, identified those factors that triggered conflicts; investigated the symbolic interactions and determined the influence of socio-cultural integration on pastoralists and the

host communities. The study employed Spearman's correlation analysis to identify factors influencing the socio-cultural interaction between pastoralists and farmers of their host communities. Therefore, gleaned on the perspectives of the authors, the study has been able to generate needed information for policy advocacy aimed at mitigating conflicts between pastoralists and host communities using the ideology of symbolic and socio-cultural interaction.

Evidence from the study showed that pastoralists have been highly integrated into their host communities' standard behavior, values, and religion while this could influence host community behavior. Although, it was found that a few pastoralists in the study speak the language of their host communities; inter-marriage with their hosts still remain low. It was also affirmed that age, marital status, herd size, education level, years of herding experience and annual income of the pastoralists were the socio-cultural factors that significantly influenced their symbolic interaction. Despite the extent of pastoralists' integration into their host communities, conflicts still exist with the farmers of the host communities. Consequently, the study has been able to establish a link between resource scarcity and conflicts as opined by [Homer-Dixon \(1999\)](#) and [Ezenwa \(2021\)](#); by showing that migration of pastoralists, in search of the scarce graze-land, to host communities often results in violent conflicts.

The study therefore recommended that the identified conflict triggers must be taken into consideration in any effort by concerned agencies to proffer a lasting solution to the ravaging conflicts. Specifically, effort should be directed towards a further integration of the pastoralists with the socio-cultural values of the host communities. For example; there is a need for inter-marriages between pastoralists and their hosts. This can be achieved by engaging extension workers who will provide extension education and training to the pastoralists and host community members in order for them to inculcate their social values. Campaigns against discrimination of the pastoralists among the host communities should equally be strengthened. In addition, government should implement policies that will enhance the provision of grazing areas where pastoralists could take their animals to feed as this would help to assuage the incessant conflicts between pastoralists and farmers.

A limitation in this study is that primary data was collected from pastoralists who are registered members of Miyetti-Allah Cattle Breeders Association (MACBAN) in Kwara State, thus excluding the unregistered pastoralists whose non-membership may have revealed different views from the information provided. Finally, it would be fascinating to explore the opinion of farmers; therefore, a consolidated research that would investigate the socio-cultural integration from the perspectives of farmers, as host communities, and



pastoralists, as migrant community, would be necessary so as to balance the discourse.

**Authors contributions statement:** Sidiqat Aderinoye-Abdulwahab: Conceived the idea, designed the study and reviewed the manuscript; Johnson Adebayo: Collected the data and wrote the manuscript; Hafiz Ali Raza: Assisted in reviewing and editing the manuscript; Tawakalitu Dolapo: Reviewed the manuscript and assisted in editing; Islamiat Abidemi-Raji: Assisted in editing; Kaothar Idris-Adeniyi: Assisted in proofreading.

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